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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,983

08/05/2003

Joseph A. Swift

D/A2211Q

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7590

09/03/2008

PATENT DOCUMENTATION CENTER

XEROX CORPORATION

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EXAMINER

GRAY, JILL M

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

09/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/634,983	Applicant(s) SWIFT ET AL.	
	Examiner Jill Gray	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-5, 7-22, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swift 6,265,046 B1 in view of Swift et al., 5,354,607 '607, for reasons of record.

Swift '046 is as set forth in the previously Office Action and teaches an apparatus comprising a member having at least one of an exterior periphery surface and an interior periphery surface and a plurality of conductive members comprising a plurality of conductive fibers situated within a polymer per claims 1, 11, and 22. See Figures 5 and 6, column 1, lines 65-66 and column 10, lines 50-51. The conductive fibers necessarily have a first end, length and second end, and Swift teaches that his fibers have a diameter in the range of about 4 to about 50 micrometers, further teaching said fibers situated within a polymer by pultrusion forming a conductive composite member, as required by claim 2. See column 5, lines 13-20, column 6, lines 54-56, and column 10, lines 36-41. In addition, Swift teaches that the fibers can be selected from carbon, metalized or metal-coated carbon or other metal-coated fibers, per claim 9, 14, and 20. See column 6, lines 66 through column 7, and line 1. Swift additionally teaches that his composite member can be fibrillated in a brush like structure as required by claims 3, 7, 24, and 26. As to claim 25, it is the examiner's position that the brush like structure would result in substantial flexibility. Moreover, it would have been obvious to adjust the

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length of the fibrillated region based upon the necessary contact of the member with electric circuitry. In addition, Figures 1 and 2 disclose an opening as required by applicants. Note also claim 7 is drawn to the future intended use, which does not provide a clear positive recitation of specific claim limitations. See column 10, lines 13-35

Also, Swift teaches that his member includes one or more layers of pultruded fabric that can be composed of non-electrically conductive fibers. These pultruded fabric layers are layered in between layers of Swift's conductive composite members, as required by claims 4, 8, 12, 18, and 21. More specifically, this configuration renders obvious the instant claimed "conductive region situated in relation to at least one of the exterior periphery surface and the interior periphery surface" and "wherein the plurality of conductive composite members are disposed in the member and are selectively situated with respect to each other and form a matrix configuration including at least one selected dimension between the plurality of conductive composite members", and the required lumen of present claims 1 and 5. See column 11, lines 20-67.

Swift does not teach that the connector member includes a plurality of recesses extending internal to the connector member and a conductive contact surface defined by a plurality of conductive fiber ends is located in at least one of the plurality of recesses (amended claims 1 and 22). Swift '607 teaches a tubular connector comprising pultruded conductive composite member having a plurality of conductive fiber ends, wherein the connector member includes a plurality of recesses having a plurality of conductive fiber ends located inside at least one of the plurality of recesses

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and being exposed through an opening in at least one of the exterior periphery surface and the interior periphery surface essentially as claimed by applicants. See Figures 8-10. In addition, Swift '607 teaches that Figures 9-10 represent alternative embodiments including the instant claimed "conductive contact surface defined by a plurality of conductive fiber ends located outside at least one of the plurality of recesses, the conductive contact surface being exposed and extending through an opening in at least one of the exterior periphery surface and the interior periphery surface. It would have been obvious to one having ordinary skill in this art to modify the connector member of Swift '046 by using a known alternative embodiment, as taught by Swift '607 to obtain the predictable results of a low energy connector for electronic devices. Moreover, the skilled artisan, in possession of the prior art teachings of Swift and Swift '607 during routine experimentation would make reasonable modifications to obtain the predictable results of a low energy connector for electronic devices.

Swift does not teach that his conductive composite member has a metal coating on at least a portion of the outside surface, per claims 1 and 10. However, it would have been obvious to provide a metal coating of the claimed critical thickness on the outside surface of said conductive composite member to enhance the conductivity of his apparatus. Regarding claims 15 and 16, the selection of the specific metal coating would have been obvious to one of ordinary skill in this art at the time the invention was made based upon the desired resistivity and usage of the end product. As to the amount of a coating as set forth in claims 17 and 19, this would have been obvious to

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determine during routine experimentation commensurate with the desired resistivity of the end apparatus.

Regarding claim 13, this claim is a product-by-process claim whereby patentability relies solely upon the product. Accordingly, the teachings of Swift obviate this claim.

As to claim 27, this claim is drawn to the future intended use of the apparatus and does not provide a recitation of clear patentable limitations. It is the position of the examiner that the apparatus of Swift is substantially similar to that of applicants and therefore is suitable for use in an RF circuit to conduct current in the instant claimed range, in the absence of clear factual evidence to the contrary.

Therefore the combined teachings of Swift '046 and '607 would have rendered obvious the invention as claimed in the present claims.

Response to Arguments

3. Applicant's arguments filed June 9, 2008 have been fully considered but they are not persuasive.

Applicants argue that the combination of conductive fiber ends located outside at least one of the plurality of recesses and conductive fiber ends extending from at least one of the plurality of recesses and a connector member being tubular and including an opening extending from the outside periphery surface to the inside periphery surface as claimed in independent claims 1 and 22, are believed to be patentable.

The examiner disagrees for the reasons set forth above in the Office Action. In particular, the combined teachings of Swift and Swift '607 clearly suggest an apparatus

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comprising a connector member substantially as claimed by applicants. Applicants have not clearly identified that which they regard as their invention.

No claims are allowed.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill Gray whose telephone number is 571-272-1524.

The examiner can normally be reached on M-Th and alternate Fridays 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton I. Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jill Gray
Primary Examiner
Art Unit 1794

/Jill Gray/
Primary Examiner, Art Unit 1794